

7.1 even answers

2 (a) Right when $v(t) > 0$

$$0 < t < \frac{\pi}{3}$$

Left when $v(t) < 0$

$$\frac{\pi}{3} < t < \frac{\pi}{2}$$

b) 2

c) 6

4 (a) Right $0 < t < 1$

Left $1 < t < 2$

(b) 4

(c) 6

6 (a) Right $0 < t < 4$

Left never

(b) $\frac{16}{3}$

(c) $\frac{16}{3}$

8 (a) Right $0 < t < 3$

Left never

(b) ≈ 1.15

(c) ≈ 1.15

10) (a) ≈ -1.44952 m

(b) ≈ 1.91411 m

12) -23 cm

14) $t = a$ $s = 11$

$t = b$ $s = 16$

$t = c$ $s = -8$

16) $t = c$ (graph is steepest)

20) (a) $x = -2.5$

(b) 19.5 meters

22) 93.6 Kilowatt-hours